

I. Project Title: **Population Estimate of Humpback Chub in Black Rocks.**

II. Principal Investigator(s):
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III. Project Summary:

Robust population estimates are now critical to monitor recovery of the humpback chub population (USFWS 2001). Recovery goals require estimates of population size at regular intervals to measure population response to management activities under the Recovery Program. A population estimate was made for the 1998–2000 time period (McAda 2002). This report summarizes the work begun towards a second estimate of population size for humpback chub in Black Rocks.

IV. Study Schedule: FY 2003 to FY 2005

V. Relationship to 2003 RIPRAP:
Colorado River Action Plan: Mainstem (pg. 36)
V.C. Estimate humpback chub populations
V.C.1. Black Rocks

VI. Accomplishment of FY 2003 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Four sampling trips were conducted in September and October (overlapping fiscal years). The last sampling trip was made during the final week of October.

Electrofishing was used more heavily than in the past. The entire Black Rocks reach was sampled with electrofishing during one early morning and one evening of each trip. This meant that trammel nets could not be set for those time periods. Electrofishing did capture quite a few roundtail chubs and a few humpback chubs. Also different sizes of trammel nets were used to attempt to minimize stress to the fish and capture a different size of fish. Trammel nets with 0.5-in inner mesh were used with mixed results. Smaller fish were collected, but catch rate was considerably less than with 1-in inner mesh. Fewer nets were set overall to minimize the time between net checks. Attempts were made to keep net sets

to 1 to 1.25 hr long, which met that fewer nets could be run at one time.

A total of 70 individual humpback chubs were captured during the investigation. Five of those fish were subsequently recaptured; one within the same sampling rotation and four in different sampling rotation. In addition, twelve of the humpback chubs captured had been tagged in previous years. Population structure was similar to previous years (see figure in appendix).

Because sampling has just been completed, data analysis is incomplete. The capture-recapture matrix has been completed, but a preliminary population estimate remains to be run. Catch per effort will also be calculated as soon as possible.

VII. Recommendations: Continue management and operation of facilities to serve as a primary refuge for endangered fishes of the Upper Colorado Basin.

II Project Status: Project is ongoing and on track

IX. FY Budget:

A. Funds Provided: \$20,500

B. Funds Expended: \$20,500

C. Difference: -0-

D. Percent of the FY 2003 work completed, 100%

E. Recovery Program funds spent for publication charges:-0-

X. Status of Data Submission: PIT tag numbers and data associated with stocked fish have been submitted to the data base.

XI. Signed: Chuck McAda

Date: 11/14/03

APPENDIX:

